

**[ABSTRACT]**

A method has been disclosed of preparing ultrafine hydrophobic latex particles of polymers and copolymers by free radical emulsion polymerization in a water-based system, making use therefor, in order to polymerize or copolymerize monomers or monomer mixtures respectively, of at least one compound selected from the group consisting of dimers and cobalt complexes, acting as a chain transfer agent (CTA), wherein said latex particles have an average particle size of less than 100 nm, being more than 10 % lower than if prepared in the absence of said CTA, characterized in that said polymerization is conducted in a water-based reaction in the presence of a chain transfer agent and of a surfactant, wherein said surfactant is present in a concentration versus said monomer or monomer mixture of from 5 up to 25 % by weight for a non-ionic surfactant or from 0.05 up to 10 % by weight for an ionic surfactant, more particularly a surfactant in a concentration below twice its critical micelle concentration.